

REMARKS

The Office Action mailed May 17, 2005 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Rejection(s) Under 35 U.S.C. § 102

Claims 1 – 6, 9, 11 – 15, 21 – 29, and 33 – 37 were rejected under 35 U.S.C. § 102(b) as anticipated by Hirasawa et al. (U.S. pat. no. 5,369,803).

Claims 1, 11, 21, 28 and 29 have been amended to recite additional features of the downconverter or downconverter process, for example, from Claim 1, that “the downconverter [has] one or more active stages configured such that signal amplitudes at which said one or more active stages become non-linear are increased relative to corresponding active stages in the receiver.” This feature, which is supported in the specification at least in paragraph [0014], is neither disclosed nor suggested in Hirasawa et al. It serves to increase the dynamic range of the receiver and prevent spurious interference in an inexpensive manner requiring no hardware modifications to the receiver itself because it uses an add-on component compatible with existing receiver connections.

This feature is also not rendered obvious by Hirasawa et al. because Hirasawa et al. makes no mention of the problem of interference due to strong signals, and accordingly takes no measures to address such interference. Hirasawa et al.’s primary concern is to reduce signal attenuation caused by transmission through coaxial cables 41, 42, and 43. Recognizing that

attenuation decreases with frequency, Hirasawa et al. downconverts the incoming signal to the intermediate frequency (IF) in the power amplifier unit 3 *before* transmitting it across the coaxial cables to the portable unit 7. The matched components of the power amplifier unit 3 and portable unit 7—that is, amplifier 34 and mixer 35 of the power amplifier unit on the one hand, and amplifier 77 and mixer 78 of the portable unit 7 on the other hand—do not appear to be different, especially in terms of the signal amplitudes at which these devices exhibit non-linearity. For this reason at least, Hirasawa et al. cannot be said to render obvious the presently claimed invention.

With respect to Claim 2, it is alleged in the Office Action that filter 33 is operative to exclude strong signals. Column 5 lines 62 – 68 are referenced in support of this. However, there is no mention in this passage of exclusion of strong signals, and the only description given is of conventional filter operation consistent with the bandpass filter illustration provided in FIG. 1, wherein the exclusion is frequency-based, rather than power-based. This is understandable because, as discussed above, Hirasawa et al. is not concerned with interference from strong signals, and therefore does not take measures to address this issue. Hirasawa et al. therefore fails to teach or suggest the invention of Claim 2, and of Claims 12 and 22 which contain similar limitations.

Rejection(s) Under 35 U.S.C. § 103(a)

Claims 7 and 16 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hirasawa et al. in view of Kerth et al. (U.S. pat. pub. no. US 2005/0003762).

Kerth et al. fails to address the aforementioned shortcomings of Hirasawa et al. in disclosing or rendering obvious features of Claims 1 and 11 from which Claims 7 and 16 directly or indirectly depend. Accordingly, the obviousness rejection based on the combination of Kerth et al. and Hirasawa et al., whose proper motivation is in any case not conceded by Applicants, is improper and should be withdrawn. This is also true of the combination of Hirasawa et al. and Takeda (U.S. pat. no. 5,524,044), directed at Claims 10, 17 – 20, and 30 – 31; the combination of Hirasawa et al., Takeda and Russo (U.S. pat. no. 6,301,297), directed at Claim 8; and the combination of Hirasawa et al., Takeda and Kerth et al, directed at Claim 32 because none of these secondary references remedies the failure of Hirasawa et al. to teach or suggest all the claimed features.

Conclusion

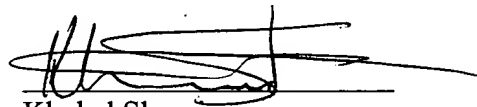
In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fees, including those necessary to obtain extensions of time to render timely the filing of the instant Amendment and/or Reply to Office Action, or credit any overpayment not otherwise credited, to our deposit account no. 50-1698.

Respectfully submitted,
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Dated: 8/5/05



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